Amendments to the Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any cancelled claims at a later date.

1.-15 (canceled)

16. (new) A method for transmitting data packets through a communications network, the packets having a maximum allowable delay (mad), and average packet rate (apr) and an average packet size (aps), the method comprising:

aggregating a plurality of data packets in a node of the network into a burst, the burst having an average number of packets; and

transmitting the burst with a link speed (ls) into the network via at least one switch having a number of channels (noc), a switching time (ts) and a given burst blocking probability (bbp),

wherein the average number of packets per burst (ppb) is between an upper and a lower limit,

wherein the upper limit (ppb_u) is calculated with the formula:

$$80\%(1+2\cdot mad\cdot apr)\leq ppb_u \leq 120\%(1+2\cdot mad\cdot apr), \text{ and}$$

wherein the lower limit (ppb_l) is calculated with the formula:

$$80\%\cdot\frac{t_s}{\frac{E_{noc}^{-1}(bbp)}{apr}-\frac{aps}{ls}}\leq ppb_l \leq 120\%\cdot\frac{t_s}{\frac{E_{noc}^{-1}(bbp)}{apr}-\frac{aps}{ls}}$$

where E_{noc}^{-1} is an inverse Erlang B formula for the noc.

17. (new) The method according to claim 16, wherein the number of packets per burst is within the lower limit.

18. (new) The method according to claim 16, wherein the number of packets per burst is within the upper limit.

19. (new) The method according to claim 16, wherein the average burst size (abs) is $abs = aps \cdot ppb$.

20. (new) The method according to claim 19,

wherein during the aggregation of packets a burst size is compared to a value and if the burst size is equal to or exceed this value, the burst is transmitted,

wherein the value is in the range between $\pm 20\% \cdot abs$.

21. (new) The method according to claim 19, wherein the packets are aggregated into a buffer, the minimum size of the buffer is determined by $aps \cdot (ppb - d)$, where d is a constant between 0 and 5.

22. (new) The method according to claim 21, wherein d is equal to 1.

23. (new) The method according to claim 19, wherein the packets are aggregated into a buffer, the maximum size of the buffer is determined by $aps \cdot (ppb + e)$, where e is a constant between 0 and 5.

24. (new) The method according to claim 23, wherein e is equal to 1.

25. (new) The method according to claim 16, wherein when the packet is stored, a random binary digit with a probability for a first and second value of the binary digit is generated and compared with the first value of the binary digit, if equal the stored packets are sent as a burst, the probability for the first value is determined by:

$$\frac{1}{ppb}.$$

26. (new) The method according to claim 16, wherein an average burst rate is determined by:

$$\frac{apr}{ppb}.$$

27. (new) The method according to claim 16, wherein an average burst rate is determined by:

$$\frac{1}{\frac{1}{apr} + 2 \cdot mad}.$$

28. (new) The method according to claim 16, wherein the average burst rate(abr) is determined by:

$$abr \leq \frac{E_{noc}^{-1}(bbp)}{ts + td}$$

where td is a burst duration time.

29. (new) The method according to claim 16, wherein the packets are Internet Protocol (IP) packets.

30. (new) The method according to claim 16, wherein the network is formed as an Optical Burst Switched network

31. (new) The method according to claim 16, wherein the node is an edge node of the network

32. (new) The method according to claim 28, wherein the burst is transformed and sent by the edge node as and optical burst into the Optical Burst Switched network